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检测
TESTING
CNAS L0446



Page 1 of 35

Test Report

Verified code: 132984

Report No.: E20250212263201-9EN

Customer: Lumi United Technology Co., Ltd

Address: Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

Sample Name: Presence Multi-Sensor FP300

Sample Model: PS-S04E

Receive Sample Date: Feb.13,2025

Test Date: Feb.26,2025 ~ Jul.03,2025

Reference Document: AS/NZS 4268:2017

Test Result: Pass

Prepared by: Wen Wenwen
Wen Wenwen

Reviewed by: Wu Haoting
Wu Haoting

Approved by: Xiao Liang
Xiao Liang

GRG METROLOGY & TEST GROUP CO., LTD.

Issued Date: 2025-07-14

GRG METROLOGY & TEST GROUP CO., LTD.

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REPORT ISSUED HISTORY

| Report Version | Report No. | Description | Compile Date |
|----------------|---------------------|----------------|--------------|
| 1.0 | E20250212263201-9EN | Original Issue | 2025-07-11 |

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1. TEST RESULT SUMMARY

| Test Item | Test mode | Test Requirement | Test Method | Test Result |
|--|-----------|---|--|-------------|
| 1. Transmitter Part | | | | |
| Maximum EIRP | Mode 1 | AS/NZS 4268:2017 Clause 6.3 | ETSI EN 300 328 V2.2.2/5.4.2.2.1 | PASS |
| Power Spectral Density | Mode 1 | AS/NZS 4268:2017 table 1 row 59 | ANSI IEEE C63.10-2020 section 11.10 | PASS |
| Occupied Channel Bandwidth & Operating frequency | Mode 1 | AS/NZS 4268:2017 Clause 6.5 and Clause 6.6 | ETSI EN 300 328 V2.2.2/5.4.7.2.1 | PASS |
| Transmitter spurious emissions | Mode 1 | AS/NZS 4268:2017 Clause 6.4 | ETSI EN 300 328 V2.2.2/5.4.9.2.2 | PASS |
| 2. Receiver Part | | | | |
| Receiver spurious emissions | Mode 2 | AS/NZS 4268:2017 Clause 7.2 | ETSI EN 300 328 V2.2.2/5.4.10.2.2 | PASS |

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2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT INFORMATION

Name: Lumi United Technology Co., Ltd
Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.2 MANUFACTURER

Name: Lumi United Technology Co., Ltd
Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.3 BASIC DESCRIPTION OF EUT

Product Name: Presence Multi-Sensor FP300

Product Model: PS-S04E

Trade Name: Aqara

Additional Model: PS-S04D

Model difference descriptions: They have the same technical construction including circuit diagram, PCB LAYOUT, hardware version and software version identical, except sales area and packaging are different.

Power Supply: 3.0V DC supplied by button cell

Battery Specification: CR2450*2 Batteries

Frequency Band: Thread: 2405MHz-2480MHz

Modulation Type: O-QPSK

Antenna Type: Internal antenna

Antenna Gain: 1.0dBi (Max.)

Sample submitting way: ☒ Provided by customer ☐ Sampling

Sample No: E20250212263201-0001, E20250212263201-0002

Temperature Range: 0 °C ~ 40 °C

Hardware Version: 1.0.0.0

Software Version: 1.0.0.0

Note: The EUT antenna gain is provided by the applicant. This report is made solely on the basis of such data and/or information. We accept no responsibility for the authenticity and completeness of the above data and information and the validity of the results and/or conclusions. The test model is PS-S04E.

2.4 TEST MODE

Test mode 1: Thread transmitting mode

Test mode 2: Thread receiving mode

2.5 FREQUENCY BAND AND THE TEST FREQUENCY

| Channel No. | Frequency (MHz) | Channel No. | Frequency (MHz) | Channel No. | Frequency (MHz) | Channel No. | Frequency (MHz) |
|-------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|-----------------|
| *11 | 2405 | 12 | 2410 | 13 | 2415 | 14 | 2420 |
| 15 | 2425 | 16 | 2430 | 17 | 2435 | *18 | 2440 |
| 19 | 2445 | 20 | 2450 | 21 | 2455 | 22 | 2460 |
| 23 | 2465 | 24 | 2470 | 25 | 2475 | *26 | 2480 |

* is the test frequency.

2.6 DESCRIPTION OF EQUIPMENT

| | | | | | |
|-----------------------------------|--|--|--|--|-----------|
| The type of the equipment | <input type="checkbox"/> FHSS | <input checked="" type="checkbox"/> other forms of modulation | / | | |
| Adaptive / non-adaptive equipment | <input checked="" type="checkbox"/> Non-adaptive Equipment | <input type="checkbox"/> adaptive Equipment without the possibility to switch to a non-adaptive mode | <input type="checkbox"/> | adaptive Equipment which can also operate in a non-adaptive mode | |
| The equipment has an implemented | <input type="checkbox"/> Frame Based equipment | <input type="checkbox"/> Load Based equipment | <input type="checkbox"/> non-LBT based DAA mechanism | <input checked="" type="checkbox"/> other | |
| Antenna Gain | <input checked="" type="checkbox"/> Antenna1 1.0dBi | <input type="checkbox"/> Antenna 2 dBi | <input type="checkbox"/> Antenna 3 dBi | <input type="checkbox"/> Antenna 4 dBi | |
| Beamforming Gain | <input type="checkbox"/> Yes, dBi | <input checked="" type="checkbox"/> | No | | |
| Extreme operating conditions | <input checked="" type="checkbox"/> Operating temperature range: | <input checked="" type="checkbox"/> | Min 0°C | <input checked="" type="checkbox"/> | Max +40°C |

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3. LABORATORY AND ACCREDITATIONS

3.1 LABORATORY

The tests and measurements refer to this report were performed by Shenzhen EMC Laboratory of GRG METROLOGY & TEST GROUP CO., LTD.

Add : No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District Shenzhen, 518110, People's Republic of China

P.C. : 518110

Tel : 0755-61180008

Fax : 0755-61180008

3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:2017.

China CNAS(L0446)

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4. MEASUREMENTS UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in ETSI EN TR 100 028-1 (i.15) and ETSI EN 100 028-2(i 8):

| Measurement | | Frequency | Uncertainty |
|-------------------|------------|----------------|-------------|
| Radiated Emission | Horizontal | 30MHz~200MHz | 4.0dB |
| | | 200MHz~1000MHz | 4.3dB |
| | | 1GHz~12.75GHz | 4.8dB |
| | Vertical | 30MHz~1000MHz | 3.9dB |
| | | 200MHz~1000MHz | 4.4dB |
| | | 1GHz~12.75GHz | 4.9dB |

| Measurement | Uncertainty |
|------------------------------|----------------------|
| RF frequency | 6.0×10^{-6} |
| RF power conducted | 0.78dB |
| Occupied channel bandwidth | 0.40dB |
| Unwanted emission, conducted | 0.68dB |
| Humidity | 6% |
| Temperature | 2°C |

Note:

¹⁾ This uncertainty represents an expanded uncertainty expressed at approximately the 95%.
This uncertainty represents an expanded uncertainty factor of $k=2$.

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5. EQUIPMENT AND TOOLS USED DURING TEST

5.1 TEST EQUIPMENT AND TOOLS

| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
|---|--------------|------------------|---------------|-----------------|
| Maximum EIRP & Maximum e.i.r.p. spectral density & occupied channel bandwidth & Operating frequency | | | | |
| Simultaneous sampling DAQ | TONSCEND | JS0806-2 | 21B8060365 | 2025-11-15 |
| High and low temperature humid heat test chamber | FC | FPHC-23AW-40 | FD202306015 | 2025-08-26 |
| Spectrum Analyzer | R&S | FSW43 | 102072 | 2025-06-14 |
| BT/WIFI System | TONSCEND | JS1120-3 | | |
| Transmitter spurious emissions & Receiver spurious emissions | | | | |
| Spectrum Analyzer | Keysight | N9010A | MY55370330 | 2025-08-23 |
| Spectrum Analyzer | R&S | FSV3044 | 101184 | 2025-07-19 |
| Bi-log Antenna | Schwarzbeck | VULB 9163 | 01279 | 2025-12-08 |
| Horn Antenna | Schwarzbeck | BBHA9120D | 02499 | 2025-08-03 |
| Amplifier | Tonscend | TAP9E6343 | AP20E806065 | 2026-02-07 |
| Amplifier | Tonscend | TAP01018048 | AP20E8060076 | 2026-02-07 |
| Amplifier | Tonscend | TAP037030 | AP20E8060081 | 2026-02-07 |
| Test software | tonscent | JS36-RSE/5.0.0.1 | | |

Note: The calibration interval of the above test instruments is 12 months.

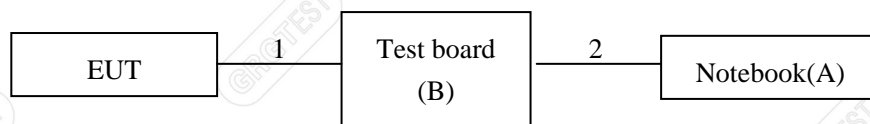
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5.2 LOCAL SUPPORTIVE INSTRUMENTS

| No. | Name of Equipment | Manufacturer | Model | Serial Number |
|-----|-------------------|--------------|--------------|---------------|
| A | Notebook | DELL | Latitude3300 | 2C6CFW2 |
| B | Test board | / | / | / |

| No. | Cable Type | Qty. | Shielded Type | Ferrite Core(Qty.) | Length |
|-----|--------------|------|---------------|--------------------|--------|
| 1 | Serial cable | 1 | No | 0 | 0.2m |
| 2 | USB cable | 1 | No | 0 | 0.5m |

Note: The notebook is just used to produce fixed frequency transmitting.

5.3 CONFIGURATION OF SYSTEM UNDER TEST

Test software

| Software version | Test level |
|------------------|------------|
| QCOM_V1.0 | 60 |

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6. RADIO TECHNICAL REQUIREMENT SPECIFICATION

6.1 MAXIMUM EIRP

Test Requirement: AS/NZS 4268:2017 Clause 6.3

Test Method: ETSI EN 300 328 V2.2.2/5.4.2.2.1

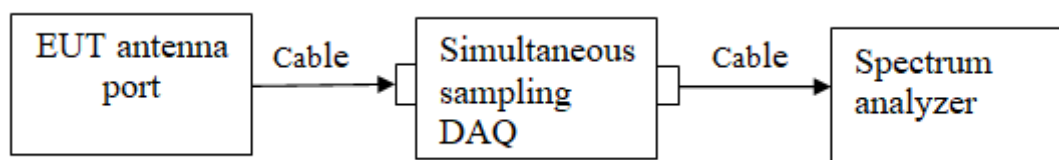
6.1.1 LIMIT

For adaptive equipment, the maximum RF output power shall be 20 dBm.

The maximum RF output power for non-adaptive equipment shall be declared by the manufacturer and shall not exceed 20 dBm. See clause 5.4.1 m). For non-adaptive equipment, the maximum RF output power shall be equal to or less than the value declared by the manufacturer.

This limit shall apply for any combination of power level and intended antenna assembly.

6.1.2 TEST CONFIGURATION



6.1.3 TEST PROCEDURES

Test procedure: Test procedure is according to Clause 5.3.2.2.1 of ETSI EN 300 328 V2.2.2

Test channel: Lowest channel, Middle channel, Highest channel

Test condition: Normal and extreme test conditions.

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6.1.4 TEST RESULTS

Test environment: Normal condition: 23.9℃/52%RH/101.0kPa

Extreme test conditions: Low Temp: 0℃

High Temp: +40℃

Test Engineer: Qin Tingting

Test Date: 2025-02-26

Test Voltage: DC 3V

| Test Condition | Test mode | Antenna | Frequency [MHz] | EIRP[dBm] | Limit[dBm] | Verdict |
|----------------|-----------|---------|-----------------|-----------|------------|---------|
| NTNV | Thread | Ant1 | 2405 | 8.22 | 20 | PASS |
| | | | 2440 | 8.17 | 20 | PASS |
| | | | 2480 | 8.15 | 20 | PASS |
| LTVN | Thread | Ant1 | 2405 | 8.22 | 20 | PASS |
| | | | 2440 | 8.17 | 20 | PASS |
| | | | 2480 | 8.15 | 20 | PASS |
| HTNV | Thread | Ant1 | 2405 | 8.22 | 20 | PASS |
| | | | 2440 | 8.16 | 20 | PASS |
| | | | 2480 | 8.15 | 20 | PASS |

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6.2 POWER SPECTRAL DENSITY

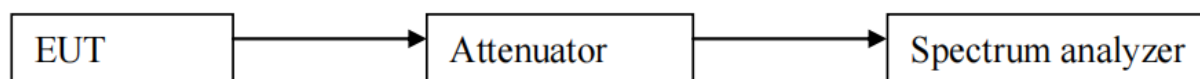
Test Requirement: AS/NZS 4268:2017 table 1 row 59

Test Method: ANSI IEEE C63.10-2020 section 11.10

6.2.1 LIMIT

The limit is 25mW per 3kHz.

6.2.2 TEST CONFIGURATION



6.2.3 TEST PROCEDURES

Test condition: Normal test conditions

Test channel: Lowest channel, Middle channel, Highest channel

Test procedure:

- 1) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.
- 2) Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- 3) Set the analyzer span to 1.5 times the DTS bandwidth. Set the RBW = 3 kHz. Set the VBW ≥ 3 RBW. Detector = peak. Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span/RBW}$ (use of a greater number of measurement points than this minimum requirement is recommended).
- 4) Repeat above procedures until all frequencies measured were complete.

6.2.4 TEST RESULTS

Environment: 23.9°C/52%RH/101.0kPa

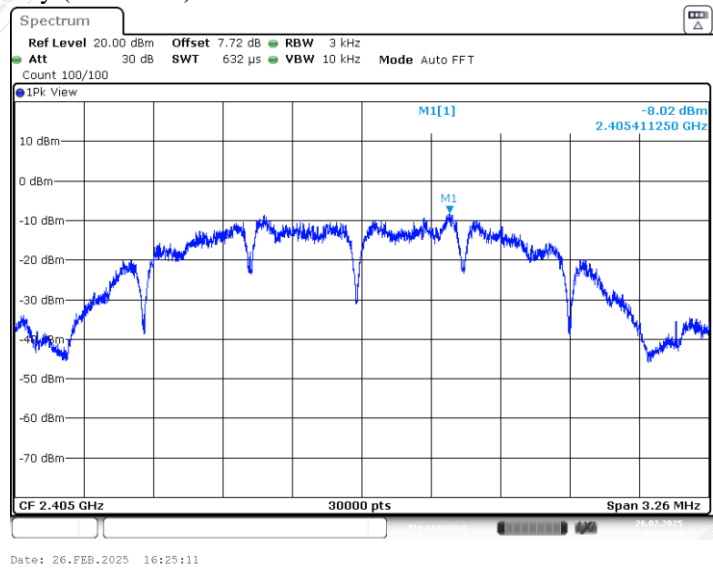
Voltage: DC 3V

Tested By: Qin tingting

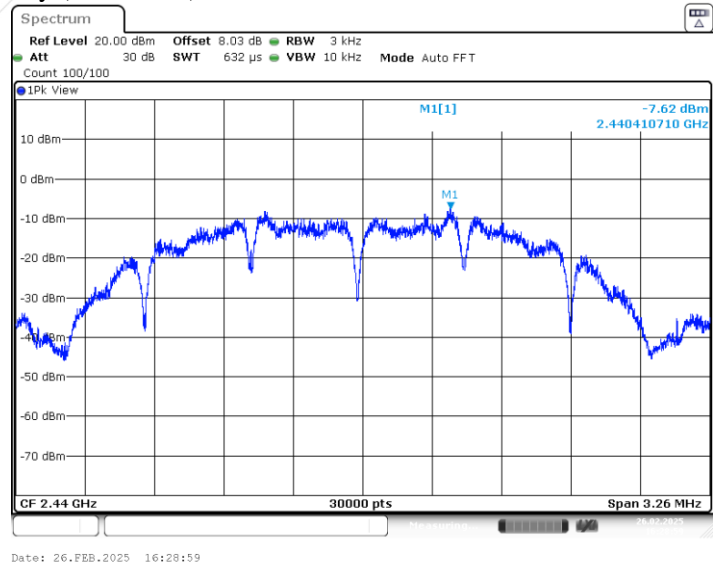
Date: 2025-02-26

| Ch Name | Frequency (MHz) | PSD (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|---------|-----------------|----------------|------------------|--------|
| Lowest | 2405 | -8.02 | 8.00 | Pass |
| Middle | 2440 | -7.62 | 8.00 | Pass |
| Highest | 2480 | -7.68 | 8.00 | Pass |

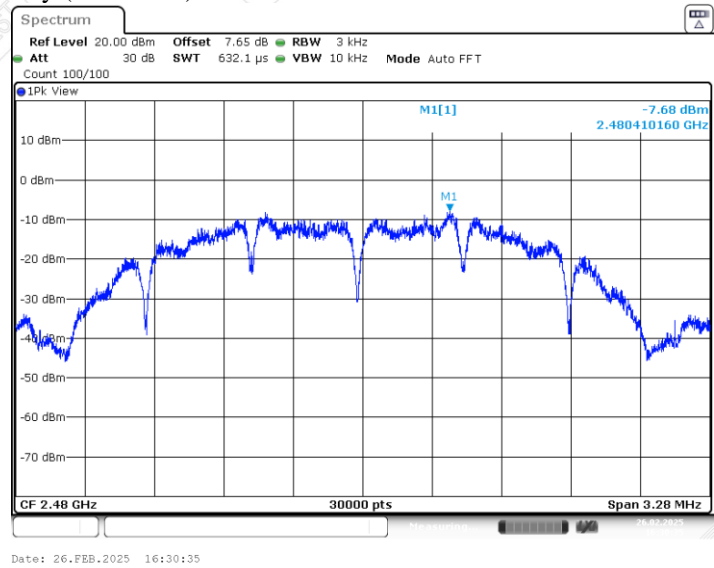
Lowest Frequency (2405MHz)



Middle Frequency (2440 MHz)



Highest Frequency (2480MHz)



Date: 26.FEB.2025 16:30:35

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6.3 OCCUPIED CHANNEL BANDWIDTH & OPERATING FREQUENCY

Test Requirement: AS/NZS 4268:2017 Clause 6.5 and Clause 6.6

Test Method: ETSI EN 300 328 V2.2.2/5.4.7.2.1

6.3.1 LIMIT

This requirement applies to all types of non-FHSS equipment.

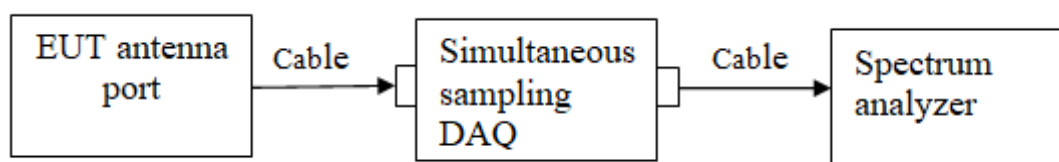
The Occupied Channel Bandwidth shall fall completely within the band given in table 2.

In addition, for non-adaptive equipment using wide band modulations other than FHSS and with e.i.r.p. greater than 10 dBm, the occupied channel bandwidth shall be less than 20 MHz.

Table 2: Service frequency bands

| | Service frequency bands |
|----------|--------------------------|
| Transmit | 2 400 MHz to 2 483,5 MHz |
| Receive | 2 400 MHz to 2 483,5 MHz |

6.3.2 TEST CONFIGURATION



6.3.3 TEST PROCEDURES

Test condition: Normal test conditions.

Test channel: Lowest channel, Middle channel, Highest channel

Test procedure: Test procedure is according to Clause 5.4.7.2.1 of ETSI EN 300 328 V2.2.2

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6.3.4 TEST RESULTS

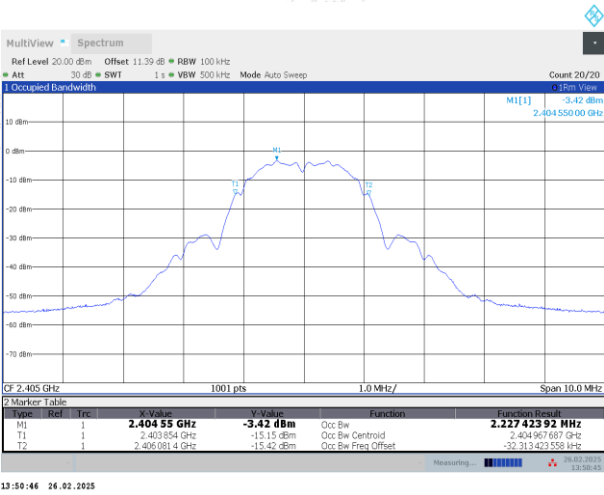
Test environment: Normal condition: 23.9°C/52%RH/101.0kPa

Test Engineer: Qin Tingting

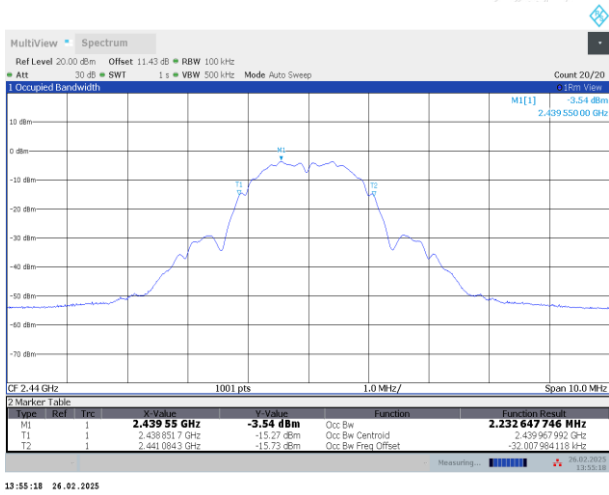
Test Date: 2025-02-26

Test Voltage: DC 3V

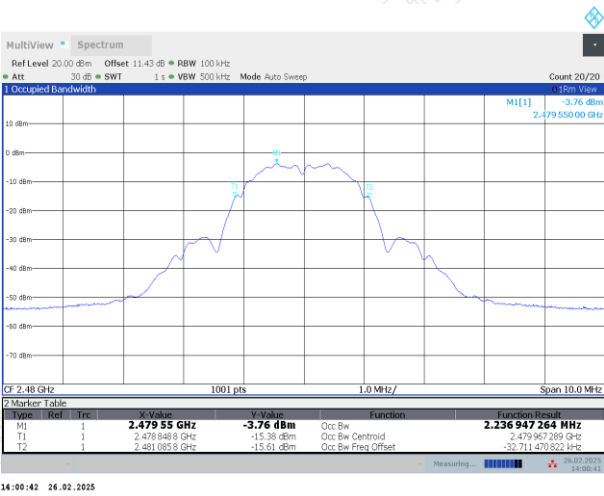
| Test Mode | Frequency [MHz] | OCB[MHz] | F _L [MHz] | F _H [MHz] | Limit[MHz] | Verdict |
|-----------|-----------------|----------|----------------------|----------------------|----------------|---------|
| Thread | 2405 | 2.227 | 2403.8540 | 2406.0814 | 2400 to 2483.5 | PASS |
| | 2440 | 2.233 | 2438.8517 | 2441.0843 | 2400 to 2483.5 | PASS |
| | 2480 | 2.237 | 2478.8488 | 2481.0858 | 2400 to 2483.5 | PASS |



Lowest Frequency: 2405MHz



Middle Frequency: 2440MHz



Highest Frequency: 2480MHz

6.4 TRANSMITTER SPURIOUS EMISSIONS

Test Requirement: AS/NZS 4268:2017 Clause 6.4

Test Method: ETSI EN 300 328 V2.2.2/5.4.9.2.2

6.4.1 LIMIT

This requirement applies to all types of non-FHSS equipment.

The transmitter unwanted emissions in the spurious domain shall not exceed the values given in table 2. In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted). For emissions radiated by the cabinet or emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p. for emissions up to 1 GHz and as e.i.r.p. for emissions above 1 GHz.

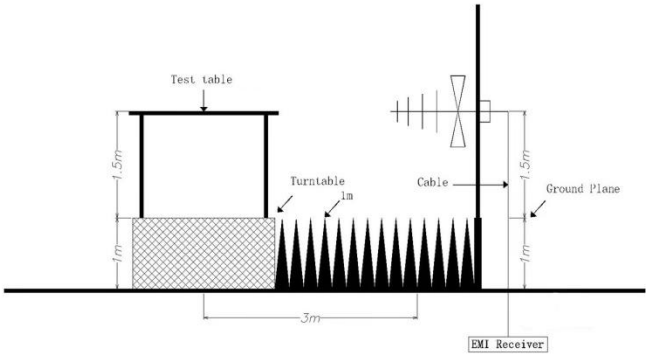
Table 2: Transmitter limits for spurious emissions

| Frequency range | Maximum power | Bandwidth |
|---------------------|---------------|-----------|
| 30 MHz to 47 MHz | -36 dBm | 100 kHz |
| 47 MHz to 74 MHz | -54 dBm | 100 kHz |
| 74 MHz to 87,5 MHz | -36 dBm | 100 kHz |
| 87,5 MHz to 118 MHz | -54 dBm | 100 kHz |
| 118 MHz to 174 MHz | -36 dBm | 100 kHz |
| 174 MHz to 230 MHz | -54 dBm | 100 kHz |
| 230 MHz to 470 MHz | -36 dBm | 100 kHz |
| 470 MHz to 694 MHz | -54 dBm | 100 kHz |
| 694 MHz to 1 GHz | -36 dBm | 100 kHz |
| 1 GHz to 12,75 GHz | -30 dBm | 1 MHz |

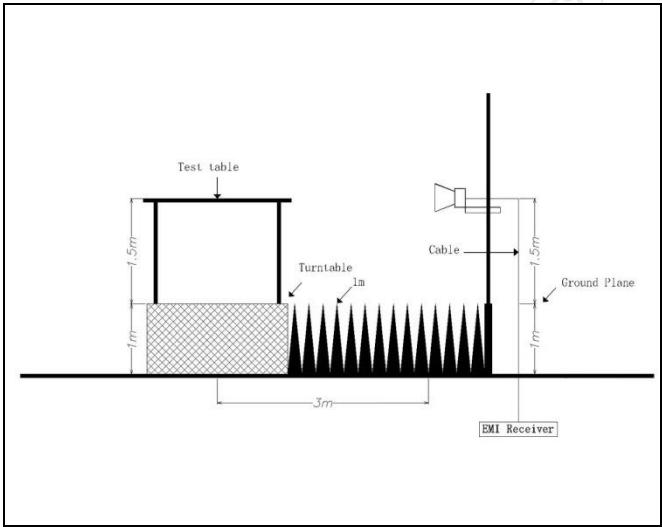
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6.4.2 TEST CONFIGURATION

30MHz~1000MHz



1000MHz~12750MHz



6.4.3 TEST PROCEDURES

Test condition: Mode 1

Test channel: Lowest channel, Highest channel

Test procedure: Test procedure is according to Clause 5.4.9.2.1 of ETSI EN 300 328 V2.2.2

Remark: Pre-test all data rate and channel, tested and recorded the worst case data.

6.4.4 DATA SAMPLE

| Frequency [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
|-----------------|---------------|-------------|-------------|-------------|-------------|----------|------------|
| XXX | -49.71 | -57.90 | -30.00 | 27.90 | -8.19 | RMS | Horizontal |

Frequency (MHz) = Emission frequency in MHz

Reading (dBm) = Uncorrected Analyzer / Receiver reading

Level (dBm) = Reading (dBm) + Factor (dB)

Limit (dBm) = Limit stated in standard

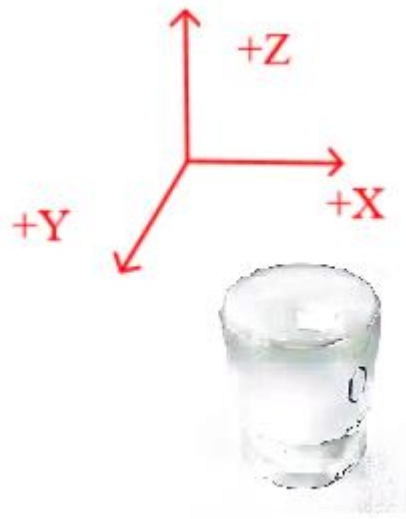
Margin (dB) = Limit(dBm) - Level (dBm)

RMS = Root Mean Square

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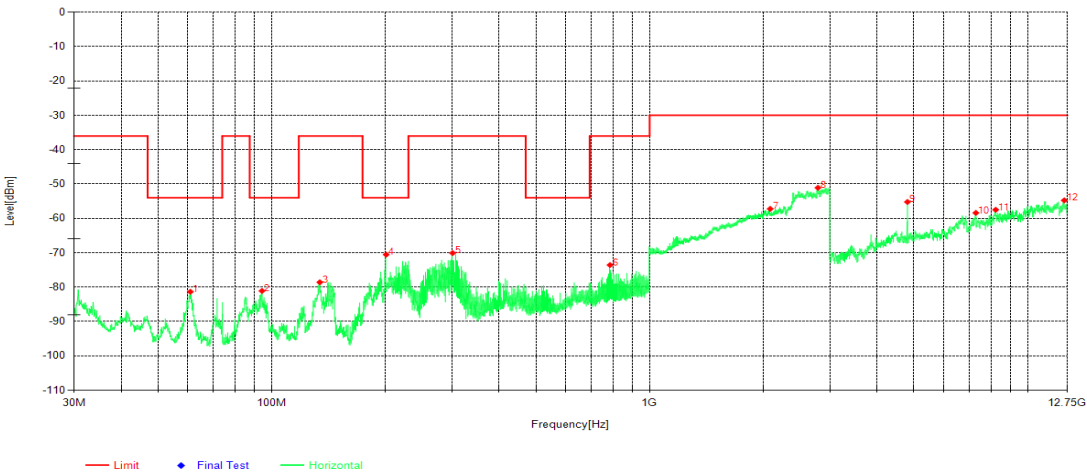
6.4.5 TEST RESULTS

The test are under 3-axes(X, Y, Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand). After pre-test, it was found that the worse radiation emission was get at the Z position. So the data was shown the Z position only.

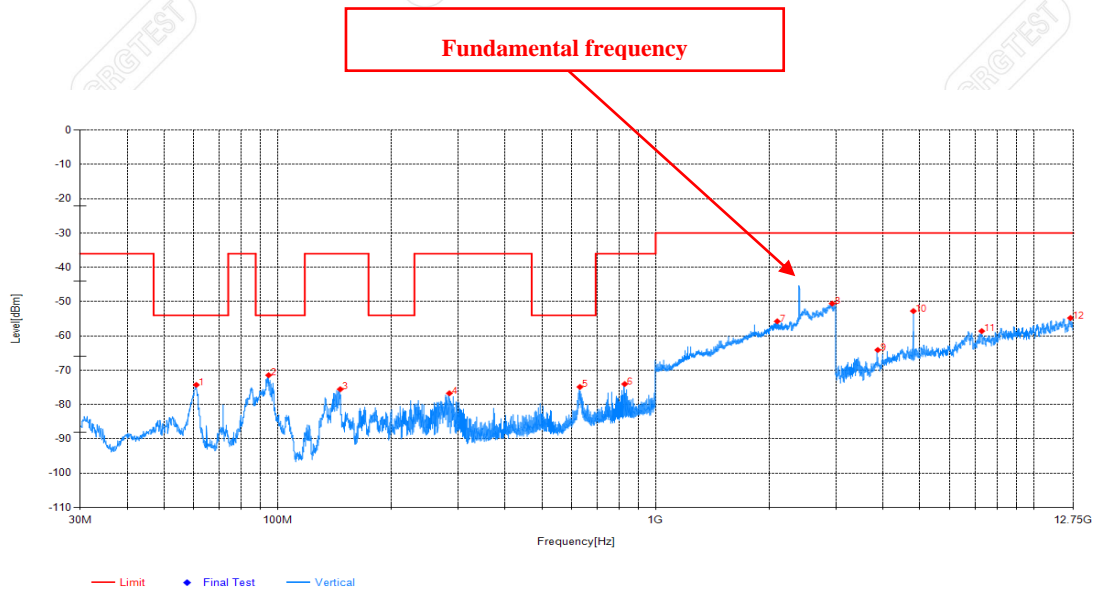


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| | | | |
|--------------|-----------------------|------------|--------------|
| Model: | PS-S04E | Test Date: | 2025-07-03 |
| Mode: | TX_2405MHz | Voltage: | DC 3V |
| Environment: | 21.7°C/65%RH/101.0kPa | Engineer: | Zhu Rongting |



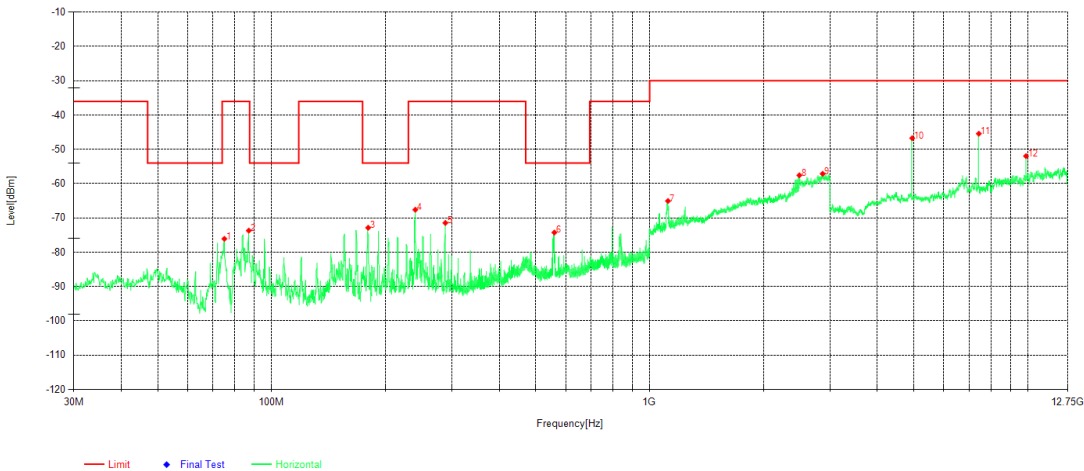
| Suspected Data List | | | | | | | | |
|---------------------|-------------|---------------|-------------|-------------|-------------|-------------|----------|------------|
| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
| 1 | 60.943 | -62.89 | -81.34 | -54.00 | 27.34 | -18.45 | RMS | Horizontal |
| 2 | 94.311 | -64.21 | -81.11 | -54.00 | 27.11 | -16.90 | RMS | Horizontal |
| 3 | 134.178 | -59.78 | -78.59 | -36.00 | 42.59 | -18.81 | RMS | Horizontal |
| 4 | 201.011 | -54.04 | -70.54 | -54.00 | 16.54 | -16.50 | RMS | Horizontal |
| 5 | 301.018 | -56.42 | -70.09 | -36.00 | 34.09 | -13.67 | RMS | Horizontal |
| 6 | 785.727 | -68.94 | -73.56 | -36.00 | 37.56 | -4.62 | RMS | Horizontal |
| 7 | 2084.8 | -64.71 | -57.21 | -30.00 | 27.21 | 7.50 | RMS | Horizontal |
| 8 | 2788 | -64.06 | -51.08 | -30.00 | 21.08 | 12.98 | RMS | Horizontal |
| 9 | 4810.575 | -53.29 | -55.19 | -30.00 | 25.19 | -1.90 | RMS | Horizontal |
| 10 | 7296.825 | -64.75 | -58.39 | -30.00 | 28.39 | 6.36 | RMS | Horizontal |
| 11 | 8232.825 | -64.73 | -57.48 | -30.00 | 27.48 | 7.25 | RMS | Horizontal |
| 12 | 12493.57 | -69.28 | -54.75 | -30.00 | 24.75 | 14.53 | RMS | Horizontal |



Suspected Data List

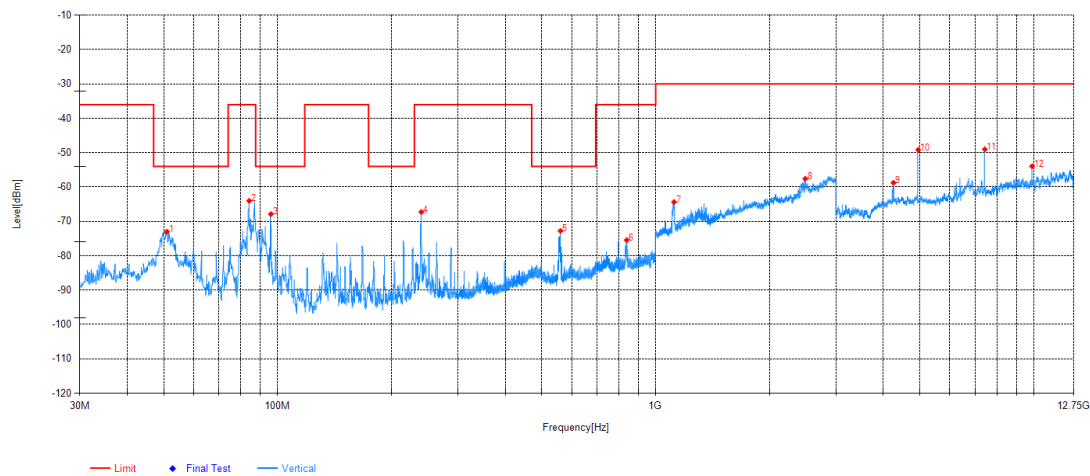
| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|----------|----------|
| 1 | 60.943 | -61.24 | -74.27 | -54.00 | 20.27 | -13.03 | RMS | Vertical |
| 2 | 94.699 | -52.09 | -71.46 | -54.00 | 17.46 | -19.37 | RMS | Vertical |
| 3 | 146.497 | -56.47 | -75.54 | -36.00 | 39.54 | -19.07 | RMS | Vertical |
| 4 | 284.722 | -62.09 | -76.71 | -36.00 | 40.71 | -14.62 | RMS | Vertical |
| 5 | 630.624 | -67.13 | -74.87 | -54.00 | 20.87 | -7.74 | RMS | Vertical |
| 6 | 828.213 | -69.05 | -74.02 | -36.00 | 38.02 | -4.97 | RMS | Vertical |
| 7 | 2098.6 | -63.85 | -55.74 | -30.00 | 25.74 | 8.11 | RMS | Vertical |
| 8 | 2930.8 | -64.55 | -50.57 | -30.00 | 20.57 | 13.98 | RMS | Vertical |
| 9 | 3870.675 | -59.68 | -64.08 | -30.00 | 34.08 | -4.40 | RMS | Vertical |
| 10 | 4808.625 | -51.02 | -52.73 | -30.00 | 22.73 | -1.71 | RMS | Vertical |
| 11 | 7290.975 | -64.73 | -58.59 | -30.00 | 28.59 | 6.14 | RMS | Vertical |
| 12 | 12514.05 | -69.36 | -54.77 | -30.00 | 24.77 | 14.59 | RMS | Vertical |

| | | | |
|--------------|----------------------|------------|--------------|
| Model: | PS-S04E | Test Date: | 2025-02-27 |
| Mode: | TX_2480MHz | Voltage: | DC 3V |
| Environment: | 23.7℃/45%RH/101.0kPa | Engineer: | Zhu Rongting |



Suspected Data List

| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|----------|------------|
| 1 | 75.008 | -53.81 | -76.09 | -36.00 | 40.09 | -22.28 | RMS | Horizontal |
| 2 | 87.036 | -54.82 | -73.69 | -36.00 | 37.69 | -18.87 | RMS | Horizontal |
| 3 | 180.059 | -54.35 | -72.85 | -54.00 | 18.85 | -18.50 | RMS | Horizontal |
| 4 | 240.005 | -51.31 | -67.60 | -36.00 | 31.60 | -16.29 | RMS | Horizontal |
| 5 | 288.117 | -57.31 | -71.45 | -36.00 | 35.45 | -14.14 | RMS | Horizontal |
| 6 | 559.911 | -65.08 | -74.25 | -54.00 | 20.25 | -9.17 | RMS | Horizontal |
| 7 | 1118 | -62.89 | -65.04 | -30.00 | 35.04 | -2.15 | RMS | Horizontal |
| 8 | 2490 | -69.91 | -57.55 | -30.00 | 27.55 | 12.36 | RMS | Horizontal |
| 9 | 2868.2 | -70.40 | -57.10 | -30.00 | 27.10 | 13.30 | RMS | Horizontal |
| 10 | 4950.975 | -45.78 | -46.74 | -30.00 | 16.74 | -0.96 | RMS | Horizontal |
| 11 | 7426.5 | -50.35 | -45.44 | -30.00 | 15.44 | 4.91 | RMS | Horizontal |
| 12 | 9902.025 | -60.23 | -51.96 | -30.00 | 21.96 | 8.27 | RMS | Horizontal |



Suspected Data List

| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
|-----|-------------|---------------|-------------|-------------|-------------|-------------|----------|----------|
| 1 | 50.952 | -59.67 | -72.99 | -54.00 | 18.99 | -13.32 | RMS | Vertical |
| 2 | 84.126 | -43.17 | -64.01 | -36.00 | 28.01 | -20.84 | RMS | Vertical |
| 3 | 95.96 | -48.56 | -67.88 | -54.00 | 13.88 | -19.32 | RMS | Vertical |
| 4 | 240.005 | -51.82 | -67.26 | -36.00 | 31.26 | -15.44 | RMS | Vertical |
| 5 | 560.008 | -63.21 | -72.76 | -54.00 | 18.76 | -9.55 | RMS | Vertical |
| 6 | 838.301 | -70.88 | -75.43 | -36.00 | 39.43 | -4.55 | RMS | Vertical |
| 7 | 1119.2 | -62.69 | -64.33 | -30.00 | 34.33 | -1.64 | RMS | Vertical |
| 8 | 2489 | -70.05 | -57.57 | -30.00 | 27.57 | 12.48 | RMS | Vertical |
| 9 | 4256.775 | -56.65 | -58.75 | -30.00 | 28.75 | -2.10 | RMS | Vertical |
| 10 | 4950.975 | -48.34 | -49.17 | -30.00 | 19.17 | -0.83 | RMS | Vertical |
| 11 | 7426.5 | -53.99 | -49.00 | -30.00 | 19.00 | 4.99 | RMS | Vertical |
| 12 | 9902.025 | -62.06 | -53.95 | -30.00 | 23.95 | 8.11 | RMS | Vertical |

6.5 RECEIVER SPURIOUS EMISSIONS

Test Requirement: AS/NZS 4268:2017 Clause 7.2

Test Method: ETSI EN 300 328 V2.2.2/5.4.10.2.2

6.5.1. LIMIT

The spurious emissions of the receiver shall not exceed the values given in table 3.

In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted).

For emissions radiated by the cabinet or for emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p for emissions up to 1 GHz and e.i.r.p for emissions above 1 GHz.

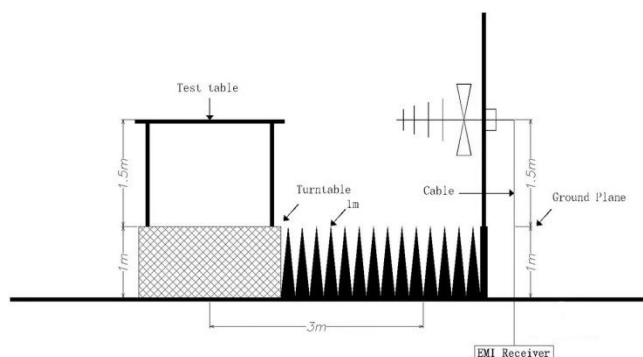
This device uses Radiated measurement.

Table 3: Spurious emission limits for receivers

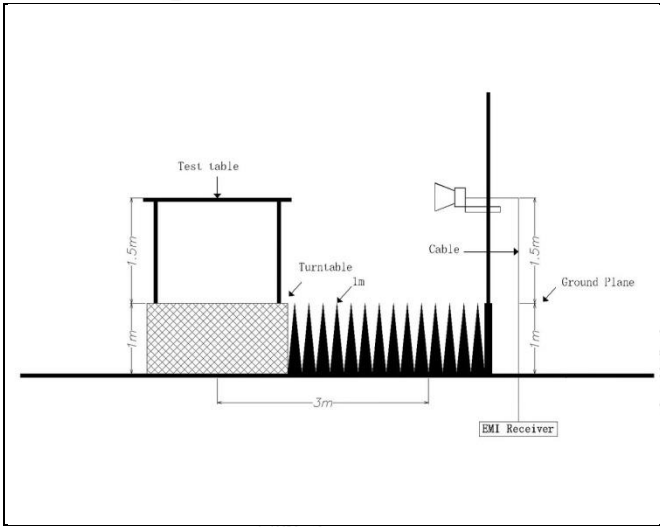
| Frequency range | Maximum power | Bandwidth |
|--------------------|---------------|-----------|
| 30 MHz to 1 GHz | -57 dBm | 100 kHz |
| 1 GHz to 12,75 GHz | -47 dBm | 1 MHz |

6.5.2. TEST CONFIGURATION

30MHz-1000MHz



1000MHz-12750MHz



6.5.3. TEST PROCEDURES

Test channel: Lowest channel, Highest channel

Test condition: Mode 2

Test procedure: Test procedure is according to Clause 5.4.10.2.2 of ETSI EN 300 328 V2.2.2

Remark: /

6.5.4. DATA SAMPLE

| Frequency [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
|-----------------|---------------|-------------|-------------|-------------|-------------|----------|------------|
| XXX | -58.02 | -73.33 | -57.00 | 16.33 | -15.31 | RMS | Horizontal |

Frequency (MHz) = Emission frequency in MHz

Reading (dBm) = Uncorrected Analyzer / Receiver reading

Level (dBm) = Reading (dBm) + Factor (dB)

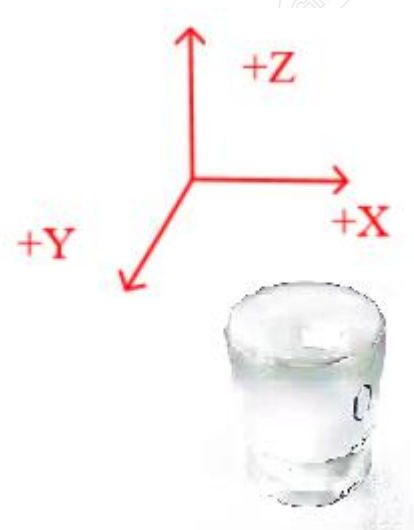
Limit (dBm) = Limit stated in standard

Margin (dB) = Limit(dBm) - Level (dBm)

RMS = Root Mean Square

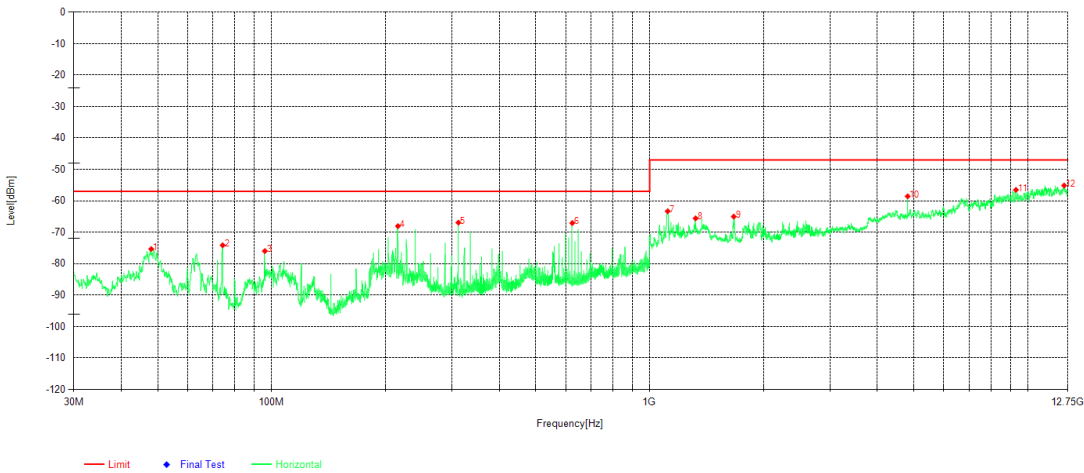
6.5.5. TEST RESULTS

The test are under 3-axes(X, Y, Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand). After pre-test, it was found that the worse radiation emission was get at the Z position. So the data was shown the Z position only.

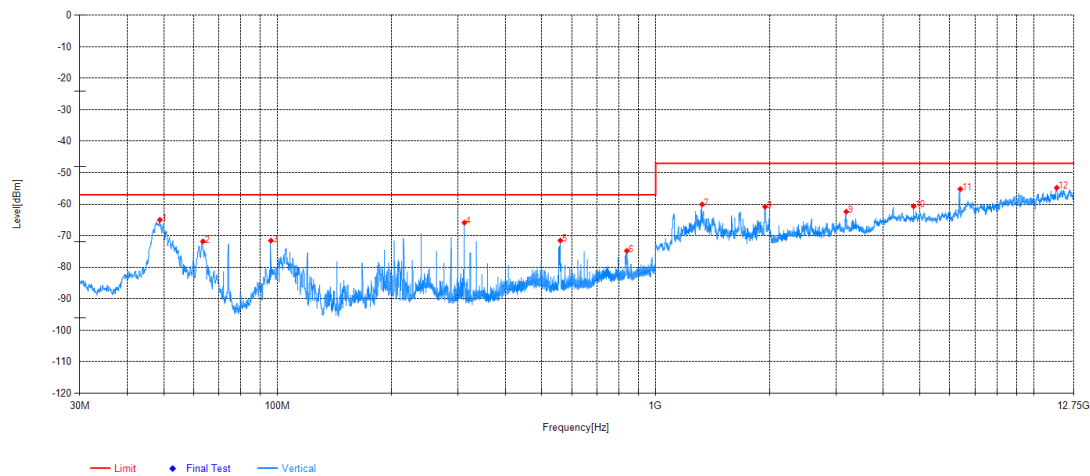


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| | | | |
|--------------|----------------------|------------|--------------|
| Model: | PS-S04E | Test Date: | 2025-05-15 |
| Mode: | RX _2405MHz | Voltage: | DC 3V |
| Environment: | 21.7℃/65%RH/101.0kPa | Engineer: | Zhu Rongting |

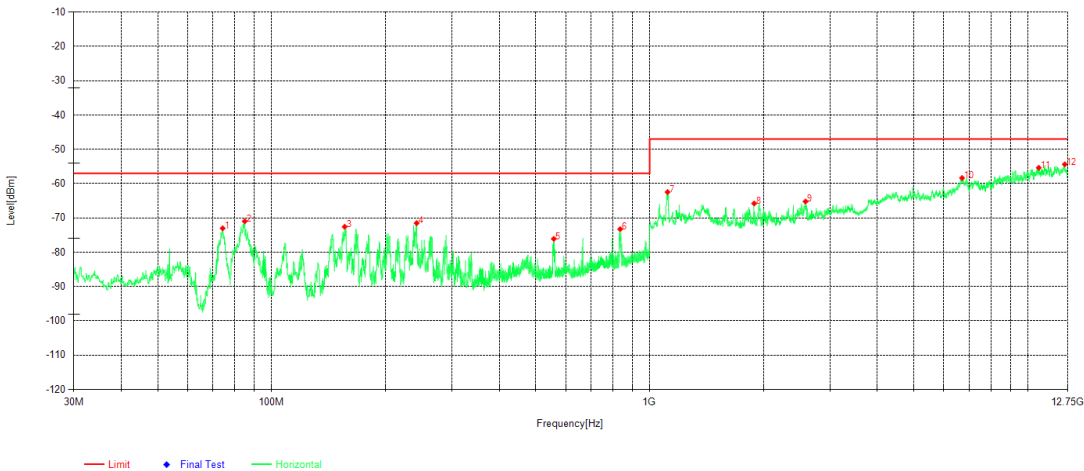


| Suspected Data List | | | | | | | | |
|---------------------|-------------|---------------|-------------|-------------|-------------|-------------|----------|------------|
| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
| 1 | 48.042 | -59.03 | -75.33 | -57.00 | 18.33 | -16.30 | RMS | Horizontal |
| 2 | 74.232 | -52.04 | -74.14 | -57.00 | 17.14 | -22.10 | RMS | Horizontal |
| 3 | 95.96 | -59.08 | -75.97 | -57.00 | 18.97 | -16.89 | RMS | Horizontal |
| 4 | 215.949 | -50.73 | -68.06 | -57.00 | 11.06 | -17.33 | RMS | Horizontal |
| 5 | 311.979 | -52.69 | -66.94 | -57.00 | 9.94 | -14.25 | RMS | Horizontal |
| 6 | 624.028 | -58.90 | -67.07 | -57.00 | 10.07 | -8.17 | RMS | Horizontal |
| 7 | 1116.325 | -49.08 | -63.31 | -47.00 | 16.31 | -14.23 | RMS | Horizontal |
| 8 | 1323.125 | -53.96 | -65.57 | -47.00 | 18.57 | -11.61 | RMS | Horizontal |
| 9 | 1669.75 | -52.09 | -65.02 | -47.00 | 18.02 | -12.93 | RMS | Horizontal |
| 10 | 4812.875 | -56.68 | -58.57 | -47.00 | 11.57 | -1.89 | RMS | Horizontal |
| 11 | 9307.25 | -66.23 | -56.52 | -47.00 | 9.52 | 9.71 | RMS | Horizontal |
| 12 | 12489.15 | -69.67 | -55.14 | -47.00 | 8.14 | 14.53 | RMS | Horizontal |

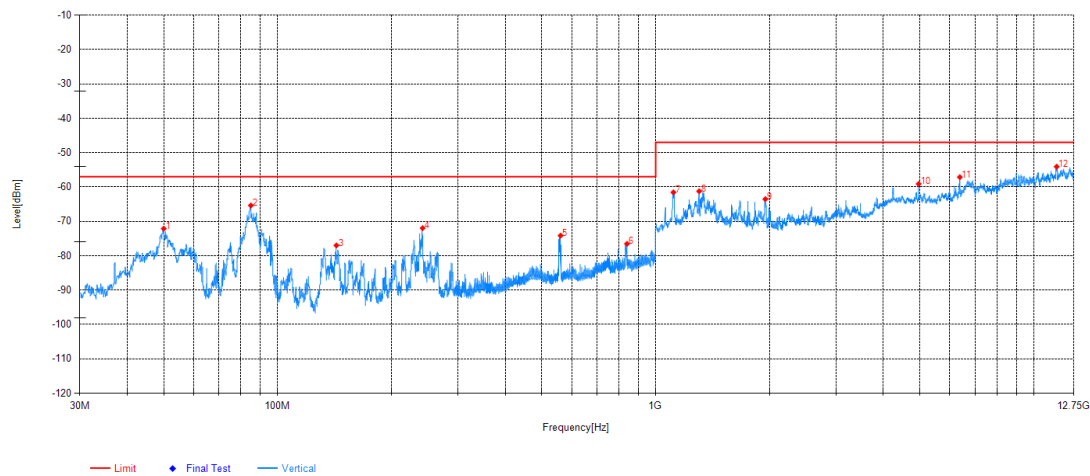


| Suspected Data List | | | | | | | | |
|---------------------|-------------|---------------|-------------|-------------|-------------|-------------|----------|----------|
| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
| 1 | 48.818 | -51.47 | -64.95 | -57.00 | 7.95 | -13.48 | RMS | Vertical |
| 2 | 63.465 | -57.41 | -71.81 | -57.00 | 14.81 | -14.40 | RMS | Vertical |
| 3 | 95.96 | -52.24 | -71.56 | -57.00 | 14.56 | -19.32 | RMS | Vertical |
| 4 | 311.979 | -51.73 | -65.84 | -57.00 | 8.84 | -14.11 | RMS | Vertical |
| 5 | 559.62 | -61.97 | -71.52 | -57.00 | 14.52 | -9.55 | RMS | Vertical |
| 6 | 839.077 | -70.28 | -74.79 | -57.00 | 17.79 | -4.51 | RMS | Vertical |
| 7 | 1326.65 | -48.32 | -60.06 | -47.00 | 13.06 | -11.74 | RMS | Vertical |
| 8 | 1947.05 | -49.01 | -60.79 | -47.00 | 13.79 | -11.78 | RMS | Vertical |
| 9 | 3192.55 | -55.34 | -62.35 | -47.00 | 15.35 | -7.01 | RMS | Vertical |
| 10 | 4812.875 | -58.96 | -60.64 | -47.00 | 13.64 | -1.68 | RMS | Vertical |
| 11 | 6397.95 | -56.74 | -55.17 | -47.00 | 8.17 | 1.57 | RMS | Vertical |
| 12 | 11511.55 | -68.54 | -54.76 | -47.00 | 7.76 | 13.78 | RMS | Vertical |

| | | | |
|--------------|----------------------|------------|--------------|
| Model: | PS-S04E | Test Date: | 2025-02-27 |
| Mode: | RX_2480MHz | Voltage: | DC 3V |
| Environment: | 23.7℃/45%RH/101.0kPa | Engineer: | Zhu Rongting |



| Suspected Data List | | | | | | | | |
|---------------------|-------------|---------------|-------------|-------------|-------------|-------------|----------|------------|
| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
| 1 | 74.232 | -50.92 | -73.02 | -57.00 | 16.02 | -22.10 | RMS | Horizontal |
| 2 | 84.902 | -50.69 | -70.96 | -57.00 | 13.96 | -20.27 | RMS | Horizontal |
| 3 | 156.1 | -52.41 | -72.57 | -57.00 | 15.57 | -20.16 | RMS | Horizontal |
| 4 | 241.945 | -55.30 | -71.51 | -57.00 | 14.51 | -16.21 | RMS | Horizontal |
| 5 | 557.68 | -66.85 | -76.08 | -57.00 | 19.08 | -9.23 | RMS | Horizontal |
| 6 | 835.876 | -68.36 | -73.27 | -57.00 | 16.27 | -4.91 | RMS | Horizontal |
| 7 | 1115.15 | -48.22 | -62.45 | -47.00 | 15.45 | -14.23 | RMS | Horizontal |
| 8 | 1889.475 | -53.44 | -65.77 | -47.00 | 18.77 | -12.33 | RMS | Horizontal |
| 9 | 2583.9 | -55.52 | -65.20 | -47.00 | 18.20 | -9.68 | RMS | Horizontal |
| 10 | 6705.8 | -63.71 | -58.34 | -47.00 | 11.34 | 5.37 | RMS | Horizontal |
| 11 | 10700.8 | -67.49 | -55.36 | -47.00 | 8.36 | 12.13 | RMS | Horizontal |
| 12 | 12534.97 | -68.60 | -54.37 | -47.00 | 7.37 | 14.23 | RMS | Horizontal |



| Suspected Data List | | | | | | | | |
|---------------------|-------------|---------------|-------------|-------------|-------------|-------------|----------|----------|
| NO. | Freq. [MHz] | Reading [dBm] | Level [dBm] | Limit [dBm] | Margin [dB] | Factor [dB] | Detector | Polarity |
| 1 | 49.982 | -58.69 | -72.10 | -57.00 | 15.10 | -13.41 | RMS | Vertical |
| 2 | 84.999 | -44.69 | -65.35 | -57.00 | 8.35 | -20.66 | RMS | Vertical |
| 3 | 143.102 | -57.61 | -76.98 | -57.00 | 19.98 | -19.37 | RMS | Vertical |
| 4 | 241.848 | -56.37 | -71.96 | -57.00 | 14.96 | -15.59 | RMS | Vertical |
| 5 | 560.59 | -64.63 | -74.14 | -57.00 | 17.14 | -9.51 | RMS | Vertical |
| 6 | 840.047 | -72.04 | -76.51 | -57.00 | 19.51 | -4.47 | RMS | Vertical |
| 7 | 1113.975 | -47.69 | -61.54 | -47.00 | 14.54 | -13.85 | RMS | Vertical |
| 8 | 1303.15 | -49.49 | -61.21 | -47.00 | 14.21 | -11.72 | RMS | Vertical |
| 9 | 1950.575 | -51.76 | -63.51 | -47.00 | 16.51 | -11.75 | RMS | Vertical |
| 10 | 4962.1 | -58.24 | -59.08 | -47.00 | 12.08 | -0.84 | RMS | Vertical |
| 11 | 6379.15 | -58.71 | -57.10 | -47.00 | 10.10 | 1.61 | RMS | Vertical |
| 12 | 11506.85 | -67.82 | -54.06 | -47.00 | 7.06 | 13.76 | RMS | Vertical |

APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Please refer to the attached document E20250212263201-CE AUS-Test Photo.

APPENDIX B. PHOTOGRAPHS OF EUT

Please refer to the attached document E20250212263201-EUT photo.

----- End of Report -----